

DoD/Navy SBIR/STTR Overview

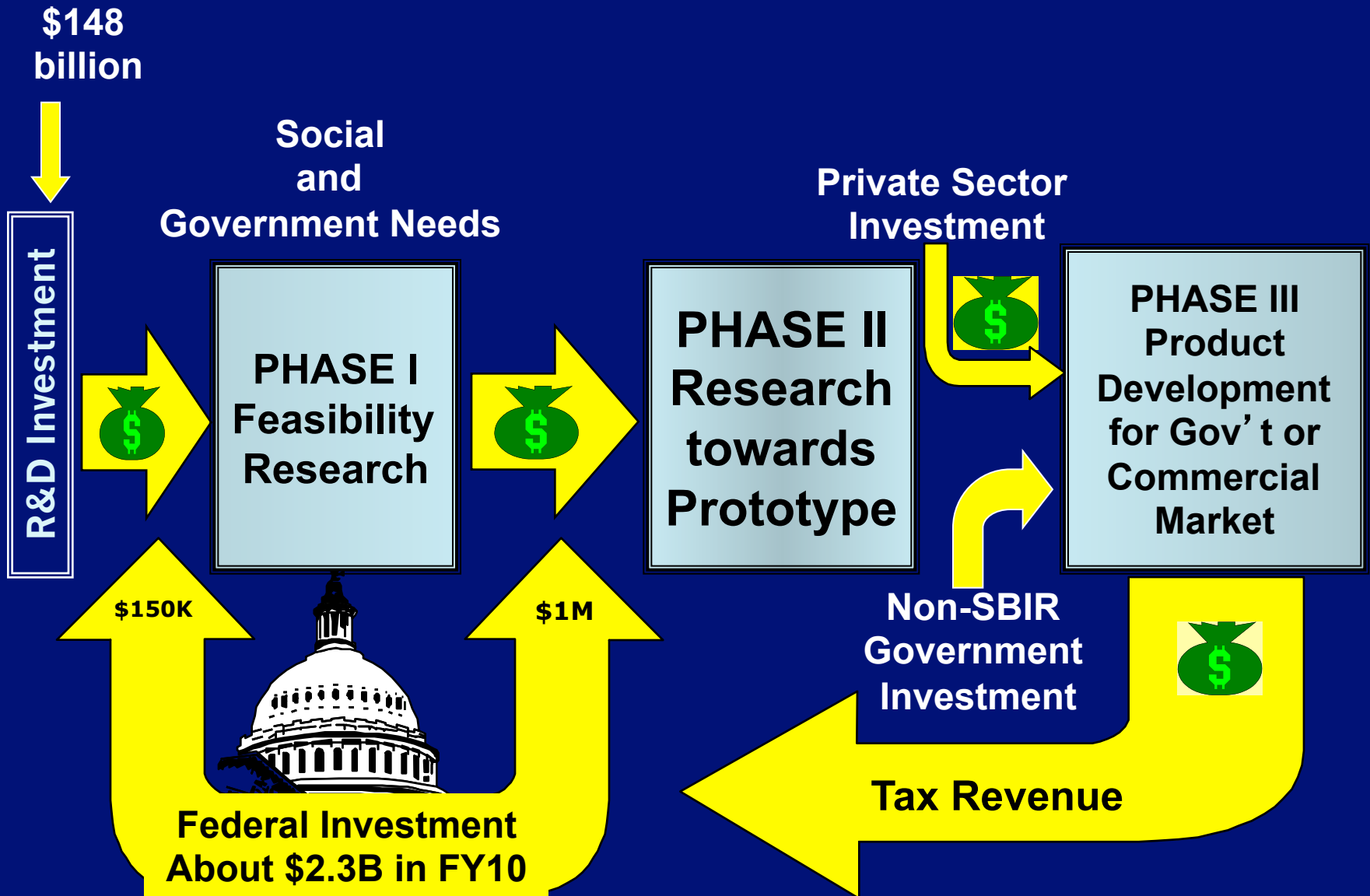
**Small Business Innovation Research (SBIR)
Small Business Technology Transfer (STTR)**

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24 August 2011

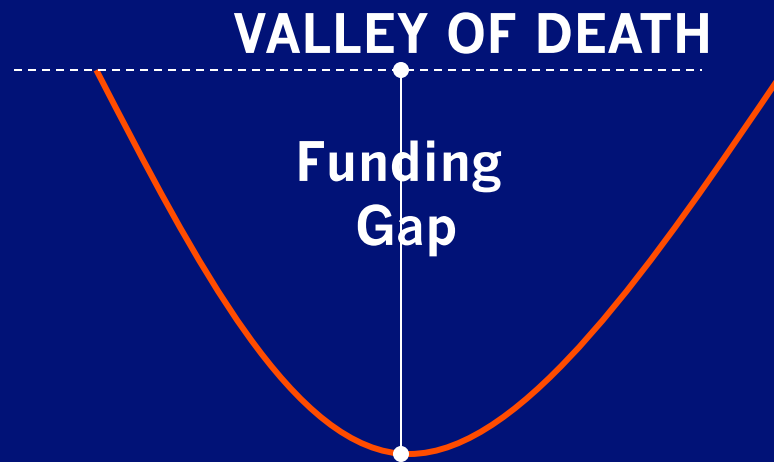
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The SBIR Process



The Early Stage “Valley of Death”

| Pre-Seed | Seed/Start- | Early | Later |
|---|--|------------------|-------------------|
| Founders, Friends, Family & Fools | SBIR AWARDS / Angel Investors/ Angel Groups | | Venture Funds* |
| \$25,000 | \$100,000 | \$1 to 2 million | \$5 million |



Adapted from:
Richard Bendis and
Ethan Blyer, “Creating
a National Innovation
Framework, *Science
Progress*, 2009

* Average Venture
Investment is \$8.3 million

Why would a Small Business Want to Participate in the SBIR/STTR Program ?

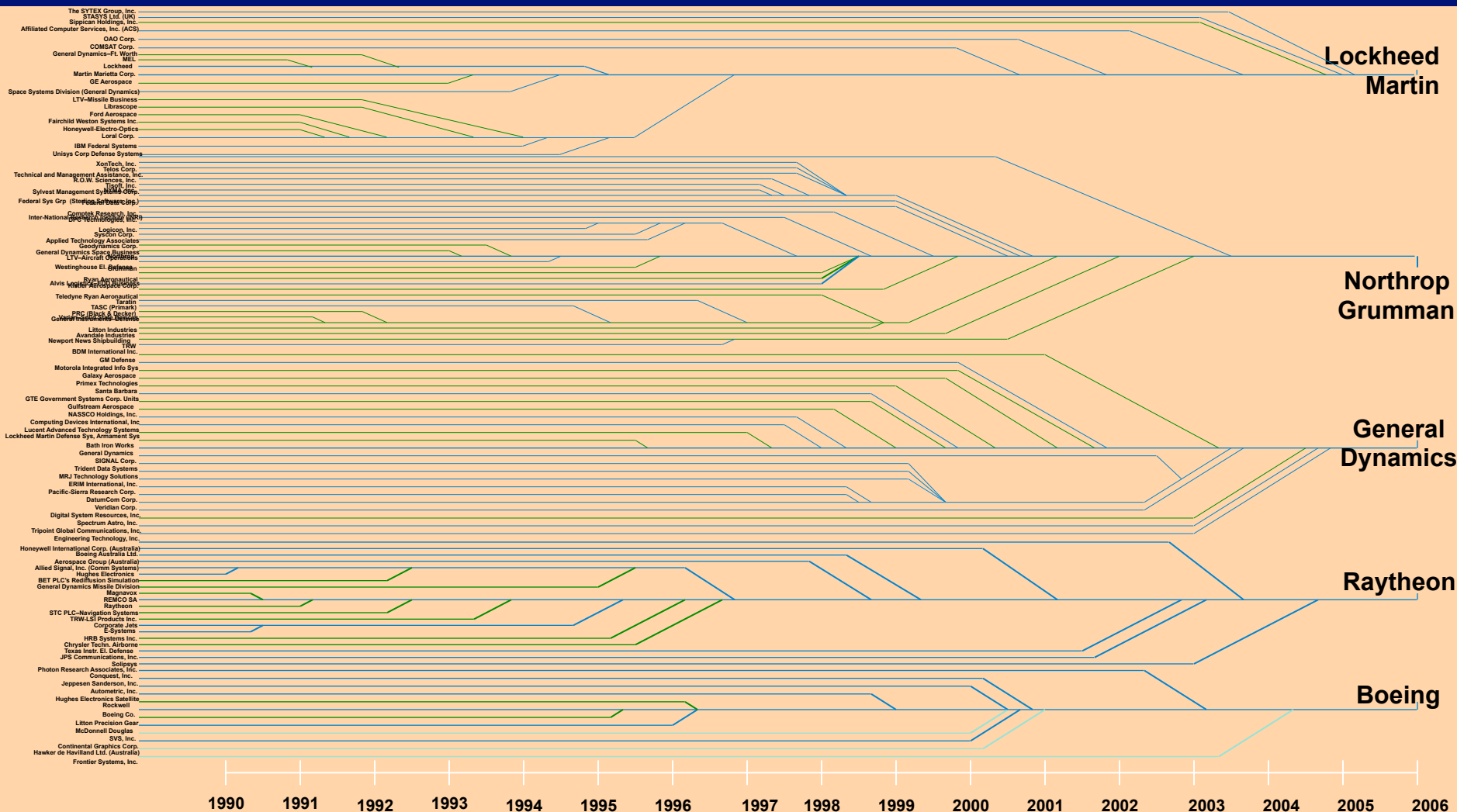
- Largest source early stage R&D funds for Small Business – Fed wide ~\$2.5B Navy >\$325M
- No dilution of ownership; owners retain control and retains data rights for 4 years or more (5 for DoD)
- Follow-on awards are contracted non-competitively
- Strong commercialization support
- No repayment is required
 - Government recoupment is through the tax system
- Certification effect draws in additional investment
 - Signal to private investors of technological validity and commercial promise of the innovation

SBIR's Advantages for Government

- A low-cost technological probe
 - Enables government to explore more cheaply ideas that may hold promise
 - Identifies dead-ends before substantial investments are made
- Quick reaction capability
 - Solicitations topics can respond rapidly to urgent national needs
 - Anthrax attacks led NIH to seek and get innovative bio-defense technologies
- Diversifies the Government Supplier-base
 - Brings in competition, low-cost solutions, new approaches to address mission needs

Over Two Decades of Consolidation:

What was over 100 “name plate” primes in the 80s is now five firms...



Sources: DM&A, Washington Technology, Company reports, and CSIS Analysis.

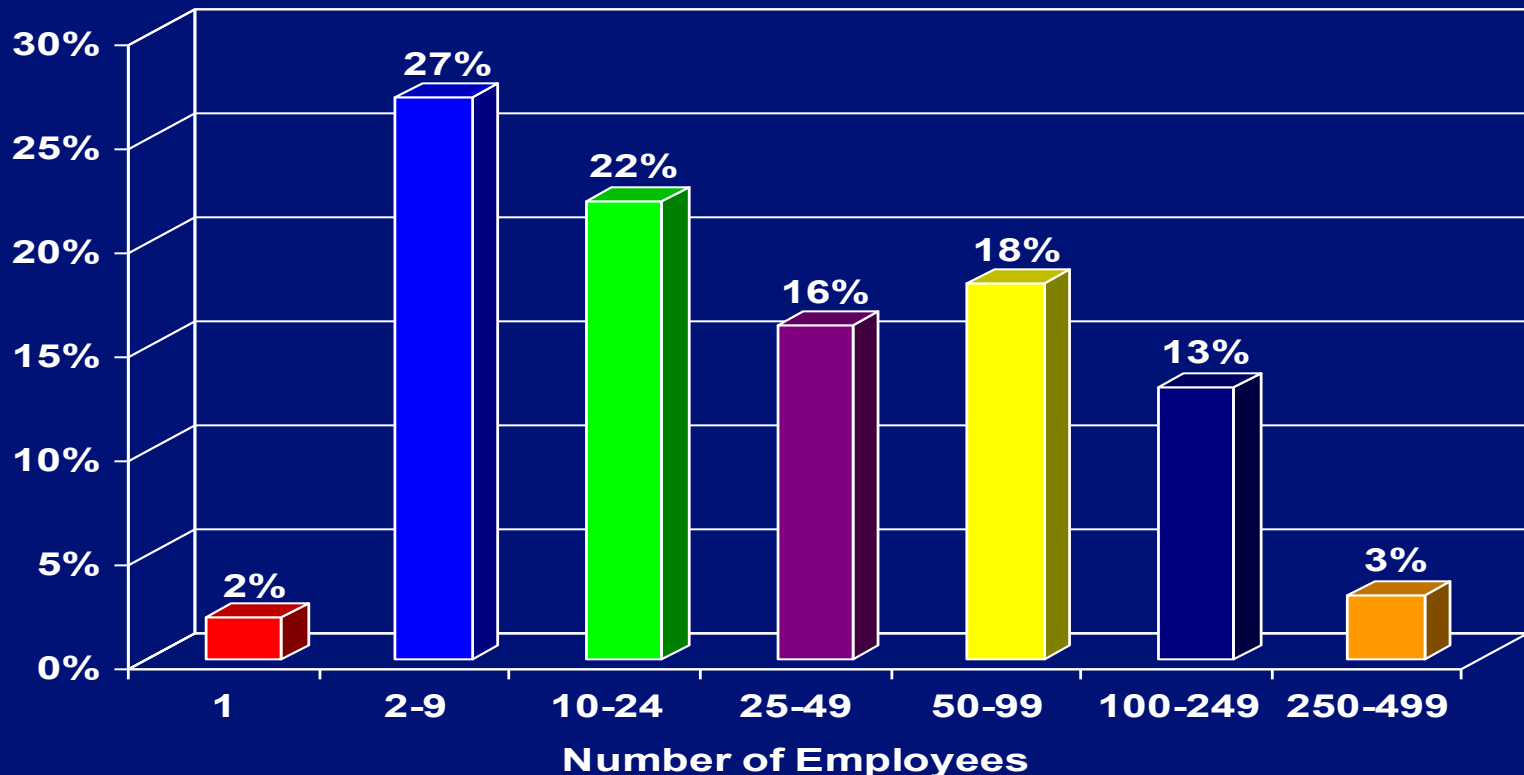
Federal Services

Defense Hardware

Commercial IT

Small Business Winners

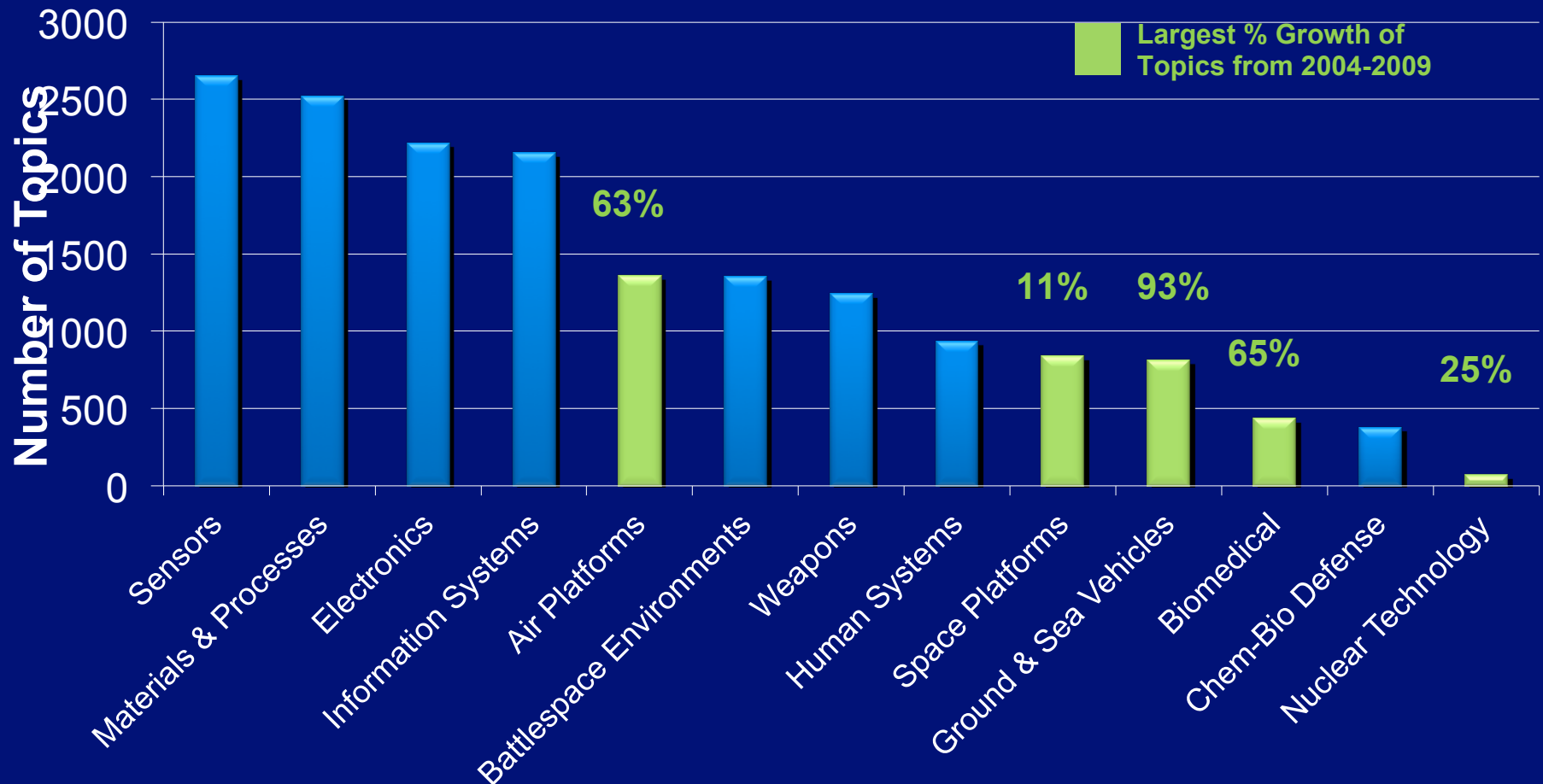
- Small hi-tech firms from across the country
- Many are firms 0 to 3 years old and SBIR funding first major source of funds



What is unique about the DoD SBIR/STTR Program?

- Focused on the **WARFIGHTER**
- **BIGGEST** of the Agencies
- Both an investor and a small business **ADVOCATE** to the customer

DoD SBIR/STTR Investment Key Technology Areas



Source: SBIR & STTR solicitations, FY99-FY09

DoD Component Participation

The SBIR and STTR programs are executed by 12 and 6 participating DoD Components, respectively.

SBIR + STTR Programs



Navy



Air Force



Army



Missile Defense Agency



Office of Secretary of Defense



Defense Advanced Research Projects Agency

SBIR Program Only



Joint S&T Office for Chemical and Biological Defense



Special Operations Command



Defense Threat Reduction Agency



Defense Logistics Agency

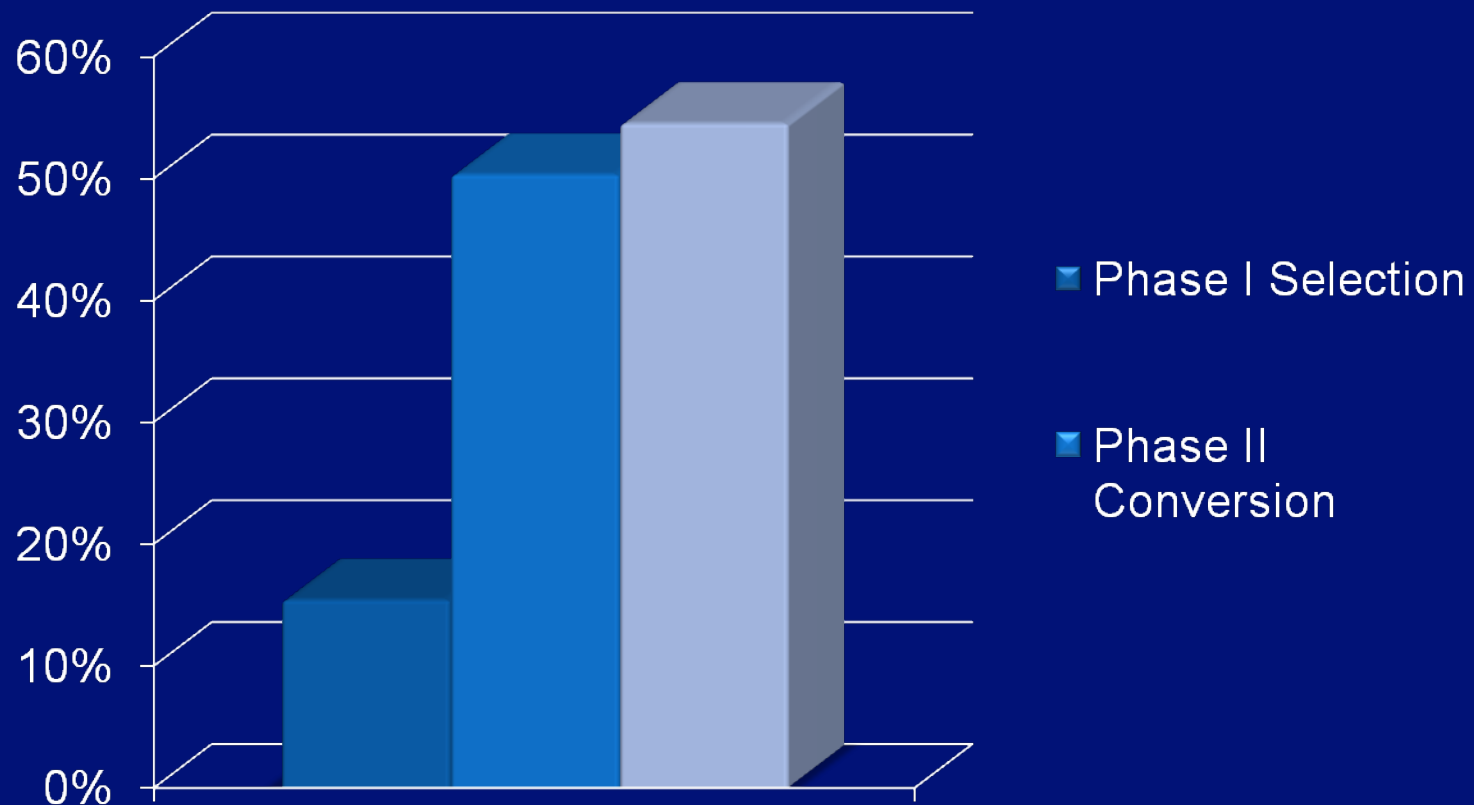


Defense Microelectronics Activity



National Geospatial Intelligence Agency

Historical SBIR Conversion Rates, by Program Phase



Based on all Phase I and Phase II contracts derived from 1996-2005 solicitations.
Commercialization data taken from January 2010 DoD SBIR Commercialization Database.

Collaboration during the Solicitation Period

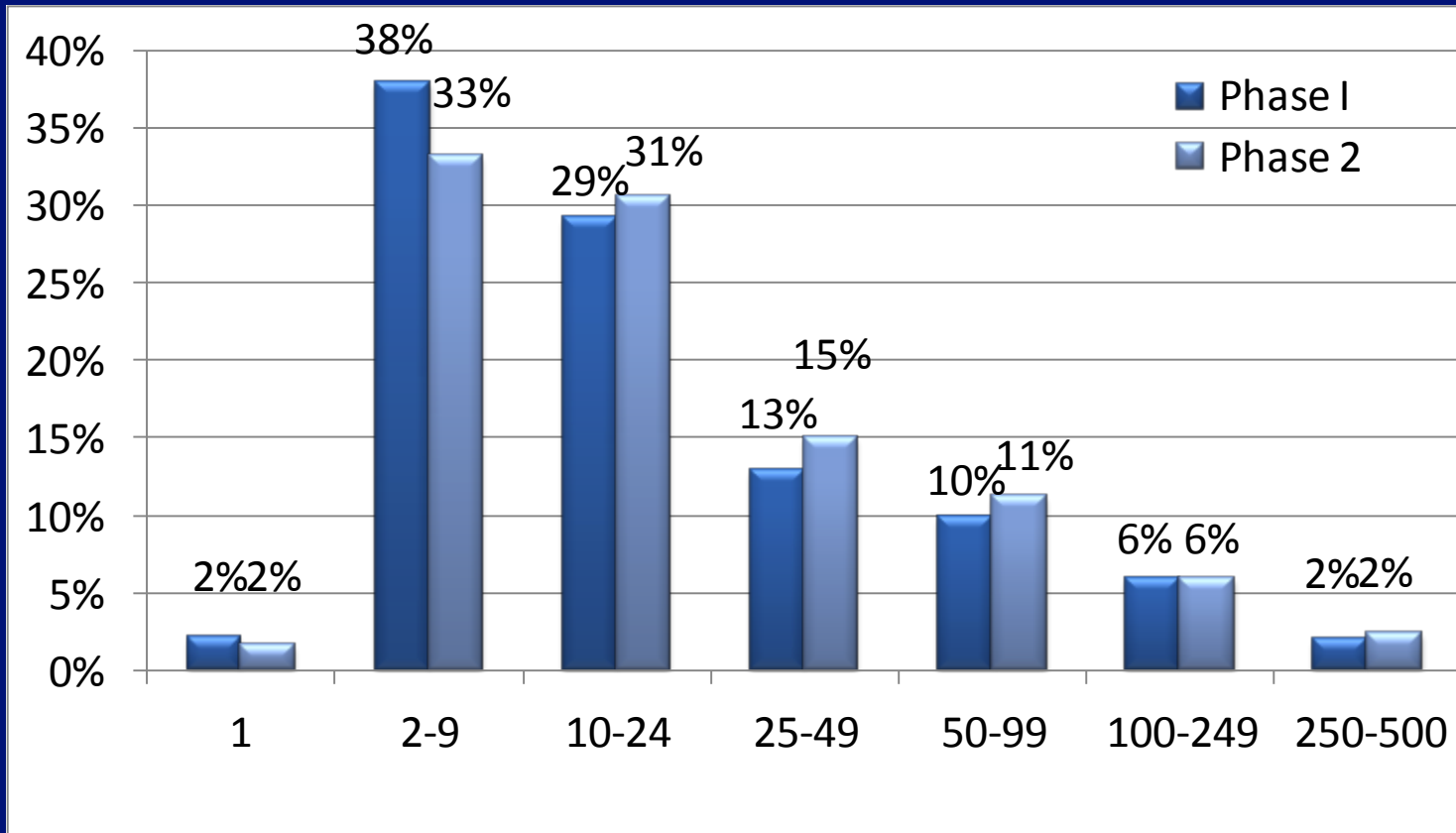
Topic Authors

- Q&A direct during pre-release
- Q&A electronic bulletin board (SITIS) from pre-release to close

Administrative Help Desk

- Telephone 8am-5pm EST @ 866-724-7457
- Email 24 hours a day at www.dodsbir.net/helpdesk

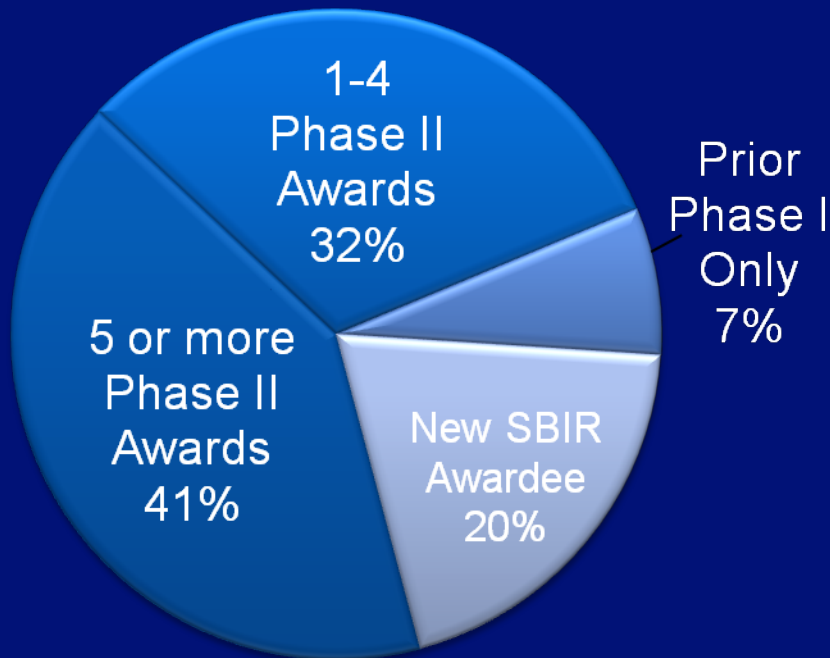
SBIR Award Recipient Distribution by Firm Size



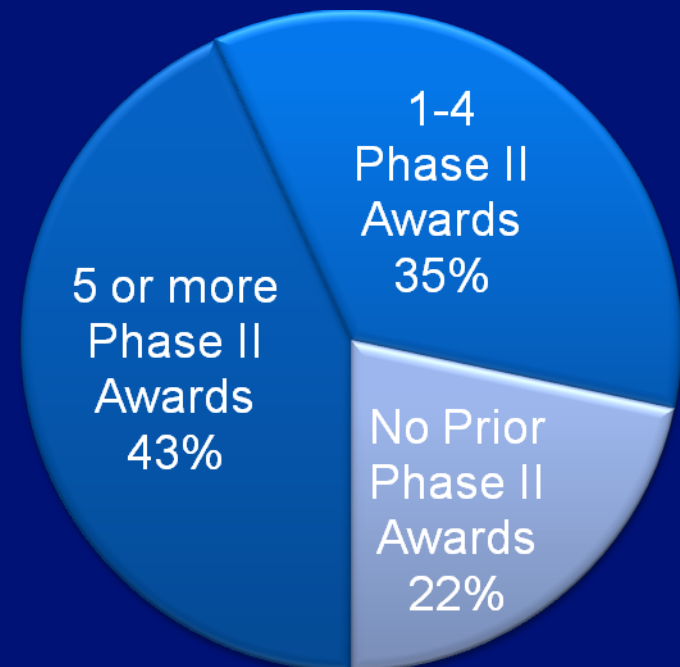
Based on FY09 Annual Report; Firm Data taken from Company
Commercialization Report

SBIR Award Recipient Distribution by Prior Experience

Phase I



Phase II



Two main goals of Navy SBIR/STTR Program:

- Use small business to develop innovative R&D that addresses a Navy need
- Commercialize (Phase III) that technology into a Navy platform or weapons system



Navy by the Numbers

| Metric | FY08 | FY09 | FY10 |
|--|---------------|---------------|----------------|
| Total Funding per FY | \$274M | \$328M | \$342M |
| Navy SBIR Topics issued that FY | 219 | 224 | 233 |
| Number Of Phase I Proposals | 2708 | 3555 | 4098 |
| Navy Phase I Awards from FY Solicitations | 555 | 597 | 658* |
| Avg time to award Navy Phase I contracts | 4.5 mo | 4.8 mo | 4.3 mo* |
| Navy Phase II Awards during FY | 272 | 240 | 296* |
| Avg time w/o funding between Phase I & II | 8.2 mo | 7.5 mo | 8.6 mo* |
| # Phase II.5' s (>\$1M) ending in FY | 43 | 45 | 63 |
| Navy Phase III Awards during FY | 90 | 126 | 131 |
| Amount of Navy Phase III Awards that FY | \$307M | \$362M | \$566M |
| SBIR/STTR Projects presented at Forum | 172 | 177 | 205 |
| Attendees at Navy Opportunity Forum | 1,252 | 1,448 | 1,367 |

** Awards still being made*

On Average 1500 SBIR and 200 STTR Open Contracts to manage

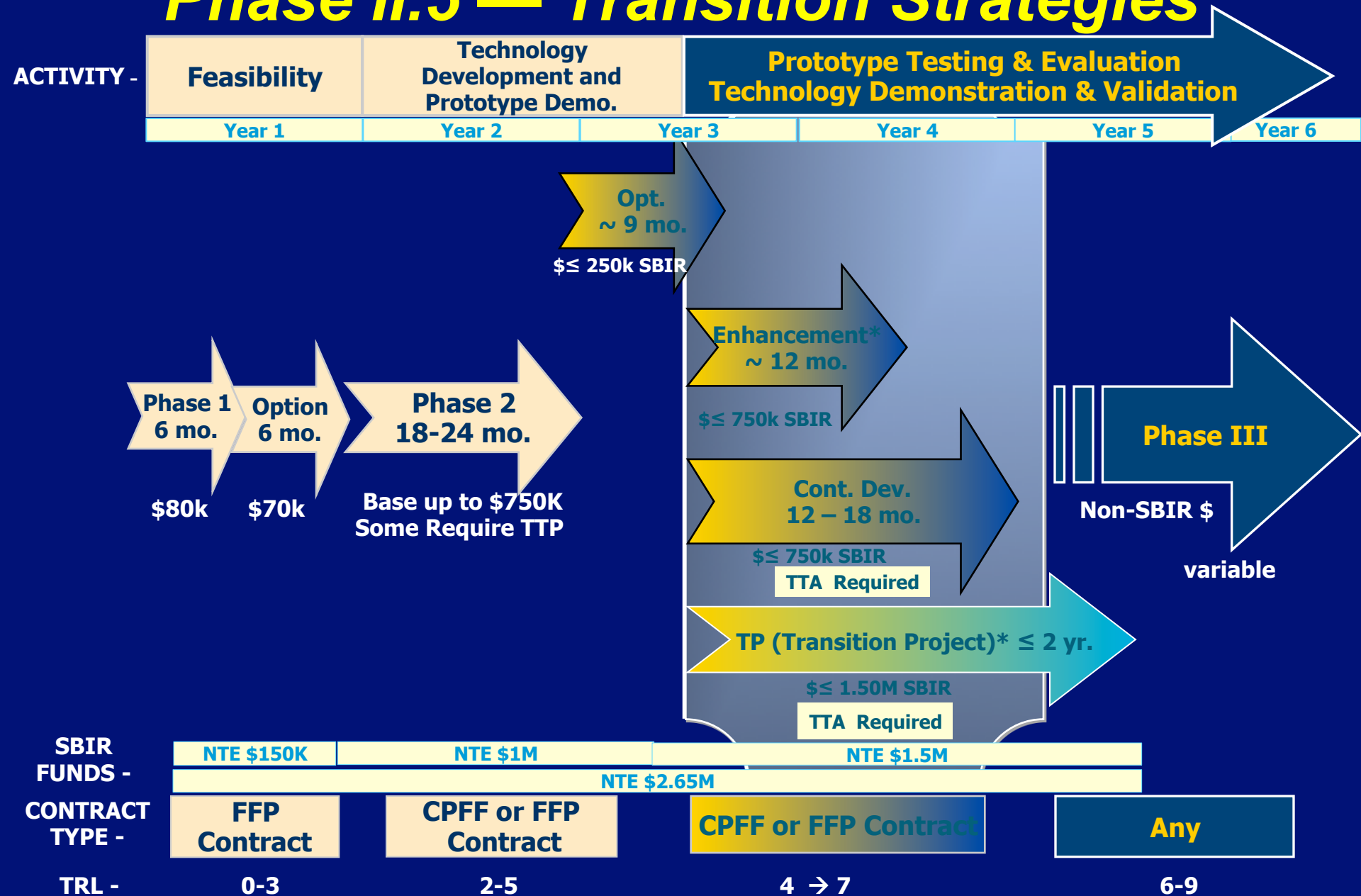
Navy SBIR Organization

- Program Administered by the Office of Naval Research
- Program Participants
 - Naval Sea Systems Command (NAVSEA): Warfare Centers, PEO's and Program Managers
 - Naval Air Systems Command (NAVAIR): Warfare Centers, PEO's and Program Managers
 - Office of Naval Research (ONR): Science & Technology Directorates and Naval Research Laboratory
 - Space & Warfare Sys. Command (SPAWAR): Warfare Centers, PEO's and Program Managers
 - Marine Corps Systems Command (MARCOR): Direct Reporting Program Managers
 - Naval Supply Systems Command (NAVSUP)
 - Naval Facilities Systems Command (NAVFAC)

Navy follows TECHNOLOGY PULL APPROACH

- Over 80% of Navy Topics are selected by PEO/ PM/FNC office and address one of their specific needs -- not just “sponsored by”
- Topics and awards based on their R&D priorities and SBIR funding allocation. The PEO gets back 90% of their tax
- Many contracts awarded/monitored by lab employees with Acquisition Office POC involved

NAVY SBIR/STTR Award Structure and Phase II.5 — Transition Strategies



Navy SBIR/STTR Website

www.navysbir.com



SMALL BUSINESS INNOVATION RESEARCH **NAVY** SMALL BUSINESS TECHNOLOGY TRANSFER

EXCELLENCE IN TECHNOLOGY

Home | Solicitations | Search Awards Database | Submission | Contacts | Help



DEPARTMENT OF THE NAVY
SBIR
STTR
Small Business Innovation Research

SYSCOMs

- Home
- About SBIR/STTR
- FAQs
- Events Calendar
- Phase II
- CPP
- Solicitation
- Submission
- Selections

Navy SBIR / STTR Home

**OPPORTUNITY FORUM® 2010**
A STRATEGIC SOURCE FOR OPEN INNOVATION

The 2010 Navy Opportunity Forum
June 7 - 9, 2010
Hyatt Regency * Crystal City, VA

Upcoming Navy SBIR/STTR solicitations

The Navy SBIR/STTR solicitations are released as part of the DoD SBIR/STTR solicitation process. On average, the Navy and DoD release 3 SBIR solicitations per fiscal year. The Navy STTR program generally participates in only 1 solicitation per year, normally released in January.

| Program | Release Dates | Opens | Closes |
|---------|---------------|-------|--------|
|---------|---------------|-------|--------|

2009 Virtual Acquisition Showcase

Browse Phase I Selections

SBIR 2010.1

Quick Search Recent Abstracts

FY-09.1 back to FY-04

[Advanced Search](#)

Transitions Newsletter

Tips for Succeeding w/Navy

Just Getting Started?

- Research topics consistent with your business strategy. Current and past solicitations identify Navy technology needs. Know Navy structure.
- Submit proposals for solicitations your company can solve. Prepare to be innovative.

Already have a Phase I?

- Know your target platform/system for insertion.
- Build strategic partnerships (Primes, Universities, Acquisition Managers, Program Managers).
- Plan commercialization path early with TPOC.

How To Search Current SBIR/STTR Solicitations

Federal Wide

www.zyn.com/sbir

DoD Only

www.dodsbir.net

*Good for get list of all topic titles but ZYN
is better as topic search tool*

Search project inventory

www.navysbirsearch.com

Supporting technological innovation · Providing cutting-edge solutions · Stimulating economic growth

Search

General Search | DTIC Categories

Enter Query Text: [New Query](#)
microbial fuel cell

Query Refinement: > [microbial fuel cell](#) [Show Help](#)

>> Advanced Options [Search](#)

Information Sources:

- ☒ Navy Awards
- ☒ Army Awards
- ☒ Air Force Awards
- ☒ Other DoD Awards
- ☐ Virtual Showcase Awards
- ☐ Success Stories
- ☐ Summary Reports

Phase:

Firm DUNS

Firm Name

Topic Number

Award TPOC

Fiscal Year

Contract No

If unsure of spelling, check to perform fuzzy word search ☐

Number of Results: 15

Sort By:

Federate Search to DTIC? ☐

Data Sources

- All Data Sources
- Navy Awards (2560)
- Army Awards (81)
- Air Force Awards (93)
- Other DoD Awards (58)

Concept Cloud

- addition to this important + civilian markets + cost effective + directed energy + electrical power + electroactive polymers + military and commercial + novel material + oxidation process + Physical Sciences + potential commercial + service life + shipboard wastewater + significant market for the resultant + surface ships + undersea vehicles + waste disposal + wastewater treatment + Water Contaminants

Display Type: [Cloud](#) | [Clusters](#)

<< Previous Displaying 1 - 15 out of 2792 Total Results Next >>

96.62% Benthic Microbial Fuel Cells Engineered for High Power Density
Summary: Benthic **Microbial Fuel Cells** Engineered for High Power Density. This will be accomplished by selective preemptive colonization of electrodes with naturally-derived marine or sedimentary **microbial** populations that most effectively generate electrical current. Anticipated benefits of the benthic **fuel** cell-based power device as compared to existing marine power sources, such as sea water batteries...
Topic Number: N08-T028
Firm Name: Scribner Associates Incorporated
Phase: I
Award Start Date: 06/23/2008
Award End/Mod Date: 07/08/2009
Source: Navy Awards

96.62% High Power Density Sediment Microbial Fuel Cell for Powering Seafloor Sensors
Summary: High Power Density Sediment **Microbial Fuel Cell** for Powering Seafloor Sensors. To reach the Navys target power density for sedimentary **fuel cells** a dramatic improvement in **microbial fuel cell** electrode current density must be achieved. Lynntech, in collaboration with Texas A&M University, proposes to solve these problems utilizing novel materials and unique biomimetic electrode designs to great...
Topic Number: N08-T028
Firm Name: Lynntech, Inc.
Phase: I
Award Start Date: 06/23/2008
Award End/Mod Date: 04/24/2009
Source: Navy Awards

96.62% Rapid Bioelectrochemical Monitoring Shipboard Effluent
Summary: Rapid Bioelectrochemical Monitoring Shipboard Effluent. To address the Navys need for real time monitoring of organics in wastewater treatment systems, Lynntech proposes a **microbial fuel cell** based sensor for monitoring Biological Oxygen Demand (BOD) of shipboard effluents. By providing near real-time feedback about the performance of marine sanitation devices, crew members can adjust the

Questions ?